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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/618,867

07/19/2000

Jack Van Oosterhout

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07/15/2004

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EXAMINER

PHAM, THIERRY L

ART UNIT

PAPER NUMBER

2624

DATE MAILED: 07/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/618,867

Applicant(s)

OOSTERHOUT ET AL.

Examiner

Thierry L Pham

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 May 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

This action is responsive to the following communication: an Amendment filed on 5/27/04.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. Claims 1-4, 9-19 are rejected under 35 U.S.C. 102(a) as being anticipated by Spohn et al (JP 411296333A).

Regarding claim 1, Spohn discloses a method for multicast document printing (parallel printing, abstract), the method comprising:

- (a) receiving document data to be printed at a host (host computer, Fig. 4), wherein said document data (print jobs, Abstract and page 4, paragraphs 11-12) includes a number of documents to be created from the document data;
- (b) dividing (dividing a print job into multiple small portions/jobs, Abstract and page 4, paragraphs 11-12) the number of copies to be created into at least two batches for at least two corresponding, separate printers (distributed to network printers for parallel printing, Abstract, page 4 paragraphs 11-12 and page 5, paragraphs 15-16);
- (c) formatting the document data into a print job (converting print data into raster data (PDL) before printing, RIP, page 2, paragraph 6);
- (d) embedding routing information for (embedded routing information using a printer driver for selecting multi-cast/parallel printing parameters, par. 4, and pars. 26-28) distribution of the batches to the corresponding printers into the print job; and
- (e) transmitting (transmitting via network such as LAN, Fig. 4, page 6) the print job as one transmission to the at least two separate printers connected by a common network to the host.

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Regarding claim 2, Spohn further discloses the method of claim 1, wherein the host is a printer (printer, Fig. 4, paragraphs 21-22, page 6).

Regarding claim 3, Spohn further discloses the method of claim 1, wherein the host is application software (printer's driver) resident in a printer (it is known in the art that printer driver software which installed in the printer (fig. 4, paragraphs 21-22, page 6) for processing input data, i.e., converting input data into PDL data).

Regarding claim 4, Spohn further discloses the method of claim 1, wherein the host is a computer (client computer, fig. 4, Abstract and paragraphs 21-22, page 6).

Regarding claim 9, Spohn further discloses the method of claim 1, wherein the transmitting the print job to at least two separate printers (Abstract and paragraphs 21-22, page 4) includes reception and temporary storage at a store-and-forward device (printer sever stores and forwards print data to printer, page 2).

Regarding claim 10, Spohn further discloses a computer readable medium (CD-ROM, paragraph 16, page 5), said medium containing software code comprising:

(a) code operable to receive document data (print jobs, Abstract and page 4, paragraphs 11-12) to be printed at a host (network, Fig. 4), wherein said document data includes a number of document data to be created from the document data;

(b) code operable to divide (dividing a print job into multiple small portions, Abstract and page 4, paragraphs 11-12) the number of document to be created into at least two batches for at least two corresponding, separate printers;

(c) code operable to format (converting print data into raster data (PDL) before printing, RIP, page 2, paragraph 6) the document data into a print job;

(d) code operable to embed (embedded via using print server by dividing print job into smaller portion, paragraph 4, page 1 and paragraph 15, page 5) information for distribution of the batches to the corresponding printers into the print job; and

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(e) code operable to transmit (transmitting via network such as LAN, Fig. 4, page 6) the print job to the at least two separate printers connected by a common network to the host.

Regarding claims 11-12, Spohn further discloses the medium of claim 10, wherein the computer readable medium is read by a computer/printer (it is known in the art that all computers/printers of Fig. 1 have some type of memory, i.e., RAM, HDD).

Regarding claims 13-14, Spohn further discloses the medium of claim 10, wherein the medium is a compact disc/diskette (CD-ROM, paragraph 16, page 5).

Regarding claim 15, Spohn further discloses the medium of claim 10, wherein the medium is a network-accessible file (network such as LAN, Fig. 4, page 6).

Regarding claim 16, Spohn discloses a network device (network, Fig. 4), comprising: (a) a port operable to connect to a network and receiving document data to be converted into hard copy output with a predetermined number of documents to be created (client computer transmits print jobs to be printed by printers, Fig. 4, page 4); (b) a processor in communication with the port, operable to format the document data into a print job and to assign batches to at least two printers (dividing a print job of 60-pages into three 20-pages using parallel processing, page 6) wherein the sum of documents to be created within each batch is substantially equal to the number of documents to be created; and to (c) a communications port operable to transmit the batches to printers connected to the network device by a common network (communicating via a network such as LAN or WAN, Fig. 4, page 1).

Regarding claim 17, Spohn further discloses the network device of claim 16, wherein the network device is a computer (client computer, fig. 4).

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Regarding claim 18, Spohn further discloses the network device of claim 16, wherein the network device is a printer (printer, fig. 4).

Regarding claim 19, Spohn further discloses the network device of claim 16, wherein the processor is a raster image processor (RIP, page 3).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spohn as described in claim 1 above, and in view of Yokoyama (U.S. 6166826).

Regarding claims 5-8, Spohn does not explicitly disclose wherein the printer is a multi-functional printer comprising of fax, copy, and scan functions.

Yokoyama, in the same field of endeavor for printing, discloses a multi-functional printer comprising of fax, copy, and scan functions (col. 14, lines 26-38).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Spohn as per teachings of Yokoyama because of a following reason: to reduce hardware costs and time by implementing parallel processing (Spohn, paragraphs 10 & 15)

Therefore, it would have been obvious to combine Spohn with Yokoyama to obtain the invention as specified in claims 5-8.

Response to Arguments

5. Applicant's arguments filed 5/27/04 have been fully considered but they are not persuasive.

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(1) Regarding claim 1, the applicants argued the prior art reference does not teach the embedded information is routing information and that the print job is only transmitted once to multiple printer addresses.

In response, the examiner will note that Applicants are arguing subject matter are not previously claimed in claim 1. Nowhere in claim 1 that applicants recite the nature of “embedded information is routing information and print job is only transmitted once to multiple printer addresses”. However, Spohn teaches a printer driver that incorporated within the host computer that allows users to route print information (i.e. parallel printing parameters) via dialog box (user interface) for parallel processing, also known as multi-cast and/or clusters. Once the users have selected and determined the appropriate options (i.e. parallel processing) via dialog box, the printer driver automatically divides print job into multiple small jobs and distributes to multiple printers connected in a network; therefore, the users only require to transmit the print job once.

(2) Regarding claims 2-4, 17-18, the applicants argued the prior art does not teach the host is a printer or application software running on the printer.

In Response, Spohn teaches a printer driver for multi-casting print jobs into multiple small jobs (par. 26-28). Since a printer driver is a software program, therefore, it can be installed on any computer readable medium, including printers. Also, Spohn also teaches a host is a printer for dividing one print job into two or more print jobs segments distributed by some printers (par. 19). In addition, claims 1-2 do not specify a printer for providing multi-casting of documents. In claim 1, limitations “receiving document data to be printed at a host” as recited in (a) and “transmitting print job to the host” as recited in (e). The limitations do not clarify a printer can be served as a multi-caster of documents. It only stated documents to be printed at the host (printers).

(3) Regarding claim 9, the applicants argued the prior does not teach “store-and-forward” device.

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In response, Spohn specifically teaches a store-and-forward device (print server, par. 4), and it is known in the art that print server is to store print data transmitted from the host and later forward it to the printers.

(4) Regarding claims 11-15, 19 are the storage medium claims for storing steps as recited in claims 1-10. Storage medium for storing steps is disclosed by Spohn (par. 16).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents/publications are relevant to applicant's disclosure invention.

(1) U.S. 2002/0101604 A1 to Mima et al, discloses a method/apparatus for parallel processing, wherein the method/apparatus divides a print job into smaller groups and then transmits to plurality of printers via network to be printed to reduce time and cost.

(2) JP 405073232A to Yamamoto, disclose a method/apparatus for parallel processing, wherein the method/apparatus divides a large print job into smaller batches/groups and then transmits to plurality of printers via network to be printed to reduce time and cost. Translation copy is provided.

(3) JP 411296333A to Spohn, which used for prior art rejections; a translation copy is attached/provided along with original Japanese patent.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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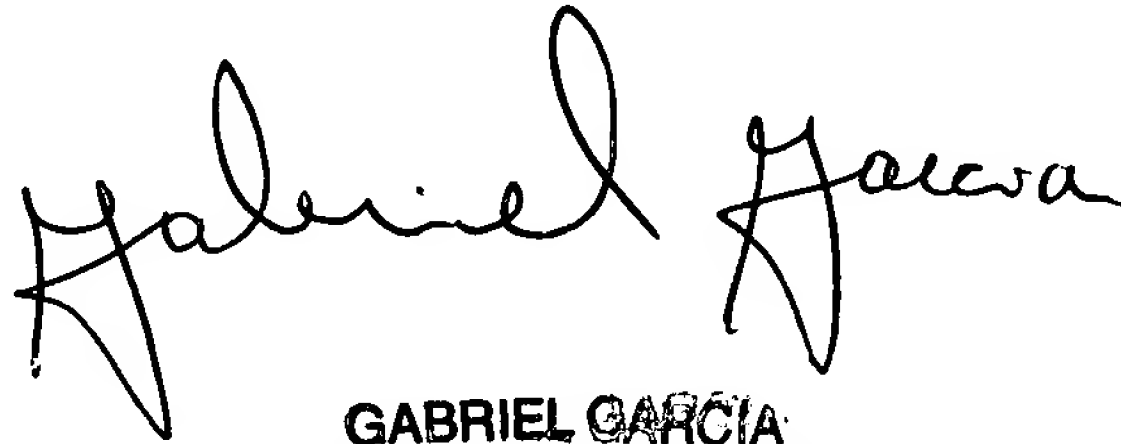
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thierry L Pham whose telephone number is (703) 305-1897. The examiner can normally be reached on M-F (9:30 AM - 6:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K Moore can be reached on (703)308-7452. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-3900.

Thierry L. Pham

TP

A handwritten signature in cursive script that reads "Gabriel Garcia".

**GABRIEL GARCIA
PRIMARY EXAMINER**